CLAIM AMENDMENTS

WHAT IS CLAIMED IS:

1. **(Currently Amended)** An arrangement for monitoring a measuring device disposed in a wheeled vehicle ~~(20)~~, comprising

- the measuring device, said measuring device being ~~designed~~ operable to measure three linear accelerations of the wheeled vehicle ~~(20)~~ which are oriented perpendicular to one another and three rotation rates of a rotational movement or of a component of a rotational movement about an axis of the wheeled vehicle ~~(20)~~, the three axes running perpendicular to one another,
- an orientation determining device ~~designed to~~ for determininge an orientation of the wheeled vehicle ~~(20)~~ from the three rotation rates in a coordinate system external to the vehicle, and
- a monitoring device ~~designed to~~ for monitoring at least one of the measured linear accelerations using an output variable of the orientation determining device and using a comparison variable.

2. **(Currently Amended)** An arrangement according to claim 1, comprising a traveling velocity determining device ~~(11)~~ for determining a traveling velocity of the wheeled vehicle ~~(20)~~ and which is connected to the monitoring device, said monitoring device being designed to determine a comparison variable using the traveling velocity.

3. **(Currently Amended)** An arrangement according to claim 2, wherein the traveling velocity determining device ~~(11)~~ is designed to determine the traveling velocity using a variable characterizing a rotation speed of a wheel of the wheeled vehicle ~~(20)~~.

4. **(Currently Amended)** **An arrangement according to claim 2**~~**Arrangement according to claim 2 or 3**~~, wherein the traveling velocity determining device ~~(11)~~ is connected to a steering angle determining device ~~(15)~~ for determining a steeling angle of at least one steerable wheel ~~(21, 22)~~ of the wheeled vehicle ~~(20)~~ and wherein the traveling velocity determining device ~~(11)~~ is designed to determine the traveling velocity using the steering angle.

5. **(Currently Amended)** **An arrangement according to claim 2**~~**Arrangement according to one of claims 2 to 4**~~, wherein the traveling velocity determining device ~~(11)~~ is connected to the measuring device and is designed to determine the traveling velocity using at least one of the three rotation rates.

6. **(Currently Amended)** **An arrangement according to claim 1**~~**Arrangement according to one of claims 1 to 5**~~, wherein the measuring device has acceleration sensors ~~(31, 32, 33)~~ for measuring the three linear accelerations and rotation rate sensors ~~(41, 42, 43)~~ for measuring the three rotation rates and wherein the acceleration sensors ~~(31, 32, 33)~~ and the rotation rate sensors are parts of a prefabricated constructional unit designed for mounting in the wheeled vehicle ~~(20)~~.

7. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 6~~, wherein the measuring device is designed such that the three linear accelerations can be measured as three measured variables linearly independent of one another.

8. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 7~~, wherein the measuring device is designed such that the three axes run pairwise perpendicular to one another.

9. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 8~~, wherein the monitoring device is designed to perform monitoring using the orientation and using a comparison acceleration, and is designed to determine the comparison acceleration without using the to-be-monitored linear acceleration measured by the measuring device.

10. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 9~~, wherein the monitoring device is designed to determine the comparison variable using a position of a vehicle body ~~(25)~~ on which the measuring device is mounted or is to be mounted, relative to a chassis ~~(21, 22, 23, 24)~~.

11. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 10~~, wherein the orientation determining device is designed to detect a stationary state of the wheeled vehicle ~~(20)~~ and, in said stationary state, to determine the values for a specifically future determination of the orientation using at least one of the linear accelerations measured by the measuring device.

12. **(Currently Amended)** An arrangement according to claim 1~~Arrangement according to one of claims 1 to 11~~, wherein the orientation determining device is designed to detect straight-ahead travel of the wheeled vehicle ~~(20)~~ on a level surface and, in this driving situation, to determine values for a specifically future determination of the orientation using at least one of the linear accelerations measured by the measuring device.

13. **(Currently Amended)** ~~Method~~ **A method** for monitoring a measuring device disposed in a wheeled vehicle ~~(20)~~ wherein the measuring device is designed to measure three linear accelerations of the wheeled vehicle ~~(20)~~ which are oriented perpendicular to one another and three rotation rates of a rotational movement or of a component of a rotational movement about an axis of the wheeled vehicle ~~(20)~~, the three axes running perpendicular to one another**, the method comprising the steps of:** ~~and wherein~~

- **determining** at least components of an orientation of the wheeled vehicle ~~(20)~~ in a coordinate system external to the vehicle ~~are determined~~ from the three rotation rates and
- monitoring of at least one of the measured linear accelerations ~~is performed~~ using at least the components of the orientation and using a comparison variable.

14. **(Currently Amended)** ~~Method~~ **A method** according to claim 13, wherein a traveling velocity of the wheeled vehicle ~~(20)~~ is determined and wherein the comparison variable is determined allowing for the traveling velocity.

15. **(Currently Amended)** ~~Method~~ **A method** according to claim 14, wherein the traveling velocity is determined using a variable characterizing a rotation speed of a wheel of the wheeled vehicle ~~(20)~~.

16. **(Currently Amended)** **A method according to claim 14**~~Method according to claim 14 or 15~~, wherein the traveling velocity is determined using a steering angle of at least one steerable wheel ~~(21, 22)~~ of the wheeled vehicle ~~(20)~~.

17. **(Currently Amended)** A method according to claim 14~~Method according to one of claims 14 to 16~~, wherein the traveling velocity is determined using at least one of the three rotation rates measured by the measuring device.

18. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 17~~, wherein the three linear accelerations are measured as three measured variables linearly independent of one another.

19. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 18~~, wherein the three rotation rates are each measured as rotation rates about one of three axes running pairwise perpendicular to one another.

20. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 19~~, wherein at least one of the components of the orientation and a comparison acceleration are used for monitoring and wherein the comparison acceleration is determined without using the linear acceleration to be monitored.

21. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 20~~, wherein the comparison variable is determined using a position of a vehicle body ~~(25)~~ on which the measuring device is mounted or is to be mounted, relative to a chassis ~~(21, 22, 23, 24,)~~.

22. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 21~~, wherein to determine the orientation, a stationary state of the wheeled vehicle~~ (20)~~ is detected and, during said stationary state, values for a specifically future determination of the orientation are determined using at least one of the measured linear accelerations.

23. **(Currently Amended)** A method according to claim 13~~Method according to one of claims 13 to 22~~, wherein to determine the orientation, straight-ahead travel of the wheeled vehicle~~ (20)~~ on a level surface is detected and, in this driving situation, values for a specifically future determination of the orientation are determined using at least one of the measured linear accelerations.